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February 1, 2017

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Administrator
c/o Acting Administrator Catherine McCabe
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW - Rm 3000
Washington, DC 20460

Dear Acting Administrator McCabe:

Enclosed please find a Petition for Reconsideration of "Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(A) of The Clean Air Act, submitted on behalf of the Concerned Household Electricity Consumers Council ("CHECC"), and Joseph D'Aleo, Clement Dwyer, Jr., Russell C. Slanover, Scott Univer, James P. Wallace III, Robin D. Weaver, and Douglas S. Springer.

This was originally sent to you for delivery on January 23, 2017, however Federal Express just returned the package back to us stating it was undeliverable. We are therefore resending it to your attention.

Please direct any replies to the counsel of record indicated on the cover of the Petition.

Sincerely,

CALDWELL, PROPST, & DELOACH, LLP



Harry W. MacDougald

BEFORE THE UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY

ORIGINAL

In re:)	
)	EPA Docket No.
Endangerment and Cause or Contribute)	
Findings for Greenhouse Gases Under)	EPA-HQ-OAR-2009-01
Section 202(a) of the Clean Air Act)	
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PETITION FOR RECONSIDERATION OF
“ENDANGERMENT AND CAUSE OR CONTRIBUTE FINDINGS FOR
GREENHOUSE GASES UNDER SECTION 202(a) OF THE CLEAN AIR ACT”

Filed by

**Concerned Household Electricity Consumers Council, consisting of
Joseph D'Aleo, Clement Dwyer, Jr., Russell C. Slanover, Scott Univer,
James P. Wallace III, Robin D. Weaver, and Douglas S. Springer**

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its members

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I. INTRODUCTION

Pursuant to Section 307(d) of the Clean Air Act, 42 U.S.C. § 7607(d), the Concerned Household Electricity Consumers Council (“CHECC”), consisting of Joseph D’Aleo, Clement Dwyer, Jr., Russell C. Slanover, Scott Univer, James P. Wallace III, Robin D. Weaver and Douglas S. Springer, hereby petition the U.S. Environmental Protection Agency (“EPA” or “the Agency”) to convene a proceeding for reconsideration of the “Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act” published by the Agency on December 15, 2009 (74 F.R. 66496, Dec. 15, 2009) (original EPA Docket No. Docket EPA-HQ-OAR-2009-171) (“the Endangerment Finding”).

As is more fully shown below, the Endangerment Finding was based on attribution of observed climate change to anthropogenic activities through what EPA termed its three “lines of evidence.” 74 C.F.R. at 66518. Scientific research since the adoption of the Endangerment Finding has invalidated each of EPA’s three lines of evidence. This Petition principally relies on the peer-reviewed Research Report of Wallace, *et al.*, that was first published on September 21, 2016. *See* <https://thsresearch.files.wordpress.com/2016/09/ef-cpp-sc-2016-data-ths-paper-ex-sum-090516v2.pdf> (“Research Report”). That Research Report is based on evidence that includes data as to atmospheric temperatures subsequent to the 2009 Endangerment Finding. The invalidation of the Endangerment Finding is conclusive, and thoroughly undermines all basis for any and all EPA regulation that is based on the Endangerment Finding, and the Social Cost of Carbon estimates that are based on this Finding.

The regulations that are based on the Endangerment Finding have resulted in much ongoing activity in the economy that looks to shut down existing sources of electricity and replace them with other much more expensive sources. Much of this activity is ongoing and, if not halted promptly, will impose massive new burdens on consumers of electricity. Therefore, Petitioners ask that EPA promptly convene hearings on this subject and issue a new “Non-Endangerment Finding” no later than June 20, 2017.

II. LEGAL STANDARD

Section 307(d)(7)(B) of the Clean Air Act, 42 U.S.C. § 7607(d)(7)(B), states in relevant part:

If the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such an objection within such time or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule, the Administrator shall convene a proceeding for reconsideration of the rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed.

Thus, EPA is required to convene a proceeding for reconsideration upon a showing of two conditions precedent: (1) the information arose after the period for public comment on the Endangerment Finding and (2) the objection is of “central relevance to the outcome of the rule.”

The procedural and substantive requirements for a petition for reconsideration are easily met here. The matters in this Petition could not have been raised during the comment period on the Endangerment Finding because the Research Report on which this Petition principally relies was first published on September 21, 2016, close to seven years *after* the Endangerment Finding. The Research Report in turn relies on substantial scientific evidence and data that did not exist at the time of the Endangerment Finding, namely data as to atmospheric temperatures that include extensive data for time periods subsequent to the Endangerment Finding. It was therefore not only impracticable but impossible to have raised these grounds within the original comment period or the period for judicial review of the Endangerment Finding.

The Petition is also timely under the rule of *Oljato Chapter of the Navajo Tribe v. Train*, 515 F.2d 654 (D.C. Cir. 1975).¹ *Oljato Tribe* sets forth a straightforward three-step process for EPA to follow in handling petitions for reconsideration under the Clean Air Act:

- (1) The person seeking revision of a standard of performance, or any other standard reviewable under Section 307, should petition EPA to revise the standard in question. The petition should be submitted together with supporting materials, or references to supporting materials.
- (2) EPA should respond to the petition and, if it denies the petition, set

¹ The Clean Air Act’s legislative history makes clear that “the committee bill confirms the court’s decision in *Oljato Chapter of the Navajo Tribe v. Train*, 515 F.2d 654 (D.C. Cir. 1975).” See H.R. Rep. 95-294, at 323 (May 12, 1977).

forth its reasons. (3) If the petition is denied, the petitioner may seek review of the denial in this court pursuant to Section 307.

Id. at 666.

This Petition satisfies the requirements enumerated in *Oljato Tribe*. It satisfies the first step because it seeks the withdrawal of the Endangerment Finding on specified legal grounds, namely that the attribution of warming to human emissions on which the Endangerment Finding is based has been conclusively invalidated. EPA thus has a duty to respond under the second step, with any denial of the Petition subject to review in the D.C. Circuit under the third step.

Oljato Tribe, in establishing the right to seek reconsideration, does no more than recognize the reality, first emphasized in the legislative history to the 1970 Clean Air Act Amendments, that regulations may need to be revised in light of new information:

Section 307 originated in the Senate version of the Clean Air Act. The Senate committee described its purpose in allowing for subsequent review based on new information as follows:

The committee recognizes that it would not be in the public interest to measure for all time the adequacy of a promulgation of any standard or regulation by the information available at the time of such promulgation. In the area of protection of public health and environmental quality, it is clear that new information will be developed and that such information may dictate a revision or modification of any promulgated standard or regulation established under the act. The judicial review section, therefore, provides that any person may challenge any promulgated implementation plan after the date of promulgation whenever it is alleged that significant new information has become available.

S.Rep.No.91-1196, 91st Cong., 2d Sess., 41-42 (1970).

Oljato Tribe, 515 F.2d at 660. Thus, when critical new information becomes available, as here, after a “regulation” has been “promulgated,” argument should be directed to EPA in the first instance on reconsideration, to build an appropriate administrative record for later D.C. Circuit review. *See id.* 665-66.

In *Oljato Tribe*, the holding of which was expressly confirmed in the legislative history of the 1977 Clean Air Act amendments, the relevant

reconsideration petition was remanded to EPA for consideration on its merits even though it was filed long outside the review period. Where, as here, the grounds for reconsideration arise after the close of the review period, the petition must still be considered.

The D.C. Circuit explained in *Oljato Tribe* that “the public’s right to petition the Administrator for revision of a standard of performance and the Administrator’s duty to respond substantively to such requests *exist completely independently of Section 307 and this court’s appellate jurisdiction.*” 515 F.2d at 667 (emphasis added). Thus, in *PPG Indus., Inc. v. Costle*, 659 F.2d 1239, 1250 (D.C. Cir. 1981), the D.C. Circuit held that amendment or repeal of a Clean Air Act regulation could be sought under APA Section 553(e) or Section 307(d)(7)(B), even well outside the 60-day review window:

Alternatively, a petition may be filed directly with EPA to interpret or amend the standard, to withdraw the Guidelines, or to specify midnight to midnight reporting procedures. *See* 42 U.S.C. § 7607(d)(7)(B); 5 U.S.C. § 553(e). Either route would provide a reviewing court with a contemporaneous record of the agency’s consideration of this issue, rather than with the “post hoc rationalizations of counsel.” *See Oljato Chapter of the Navajo Tribe et al. v. Train*, 515 F.2d 654, 665-68 (D.C. Cir. 1975).

PPG Indus., Inc. v. Costle, 659 F.2d at 1250. This procedure has been repeatedly recognized and approved. “The court subsequently endorsed the same procedure [as in *Ojlato Tribe*], also under section 307, in *Group Against Smog & Pollution, Inc. v. EPA*, 665 F.2d 1284, 1290 (D.C. Cir. 1981); and *Natural Resources Defense Council, Inc. v. Thomas*, 845 F.2d 1088 (D.C.Cir.1988).” *Ciba-Geigy Corp. v. EPA*, 46 F.3d 1208, 1210 (D.C. Cir. 1995) (agreeing with the reasoning of those cases). The Agency itself granted a three-month stay of an emissions standard promulgated nearly four years earlier. *See* 63 Fed. Reg. 24,749 (May 5, 1998).

In sum, it is well-settled that EPA has a duty to consider and grant this Petition for Reconsideration, under both Section 307 and as a petition for rulemaking under 5 U.S.C. 553(e), because the grounds presented arose after the close of the period for public comment and judicial review.²

² To be clear, this Petition seeks relief alternatively under Clean Air Act Section 307(d)(7)(B) and 5 U.S.C. § 553(e).

Where, as here, the issues on reconsideration are substantial, a summary denial of the Petition would constitute an abuse of EPA's discretion. *Id.* at 666, n. 19. Likewise, a decision that EPA lacks authority to entertain the petition at all would misread the Agency's statutory mandate. *See Prill v. NLRB*, 755 F.2d 941, 947-48 (D.C. Cir. 1985), and its progeny. EPA may and must exercise the statutory discretion it has been delegated to consider this Petition on its merits.

The matters raised in this Petition are clearly of "central relevance" to the outcome of the Endangerment Finding. Indeed, the Research Report thoroughly and conclusively invalidates the entire basis for the Endangerment Finding, as that basis is stated and defined in the Endangerment Finding itself. *See Coalition for Responsible Regulation v. EPA*, 684 F. 3d 102, 125, 126 (D.C. Cir. 2012) (defining test of "central relevance"), *reversed on other grounds sub. nom. Utility Air Regulatory Group v. EPA*, 134 S.Ct. 2427 (2014).

III. STANDING OF THE PETITIONERS

The Petitioners herein are the Concerned Household Electricity Consumers Council ("CHECC"), and its members, namely Joseph D'Aleo, Clement Dwyer, Jr., Russell C. Slanover, Scott Univer, James P. Wallace III, Robin D. Weaver, and Douglas S. Springer.

Each of CHECC's members is a citizen of the United States and a member of a household that pays a monthly electricity bill to a utility that in turn is regulated by EPA. EPA's regulations based on the Endangerment Finding – notably but not exclusively including the so-called Clean Power Plan, 40 C.F.R. at 64662, *et seq.* – seek to replace current electricity generation sources primarily based on fossil fuels like coal and natural gas with so-called "renewables," principally wind turbines and solar panels. Replacement of fossil fuel sources with such renewables, that provide power only intermittently, threatens to increase the cost of electricity paid by the Petitioners (and by all Americans) by a factor of five or likely far more. Thus, should EPA's Endangerment Finding not be reconsidered and revoked, each of the Petitioners faces electricity bills that will inevitably increase over the coming years by many thousands of dollars per year. On a nationwide basis, the unnecessary incremental cost to consumers of replacing fossil fuel-based electricity generation with intermittent renewables is likely to be in the range of hundreds of billions of dollars per year, if not more.

A critical problem with intermittent renewables like wind and solar power lies in the excess costs that must be incurred to turn power from these sources into a fully-functioning electricity system that provides reliable power 24 hours a day, 7

days a week, and 365 days a year. Unfortunately, the wind is often calm or blows lightly; and the sun goes completely dark fully half the time (“night”), and also shines at far less than full strength on winter days, cloudy days, cloudy winter days, and at dawn and dusk. At many of these times, consumer power demands are high.

When the intermittent sources provide less than 10% of the electricity in a system, the problems of intermittency typically make only a small cost difference. On a calm night, the lack of power from wind and solar sources can be covered over by a cushion of 10 – 15% or so of excess fossil fuel-based electric power generation capacity. But as the percent of electricity generation from intermittent renewables increases to 15% and beyond, the necessary additional costs multiply. That proposition is demonstrated by the experience of states and countries that have attempted to increase the percent of their electricity generated by intermittent renewables.

For example, California is a “leader” in the United States in generating power from wind and solar sources. According to the California Energy Commission, in 2015 California got 6% of its electricity supply from solar and 8.2% from wind, for a total of 14.2% from those two intermittent sources. *See* http://www.energy.ca.gov/almanac/electricity_data/total_system_power.html According to the U.S. Energy Information Agency, California’s average electricity rate that year was 15.62 cents per kWh, versus a U.S. average of 10.31 cents per kWh. *See* https://www.eia.gov/electricity/monthly/epm_table_grapher.cfm?t=epmt_5_6_a In Europe, Germany began its so-called *Energiewende* (“energy transformation”) in 2010, and by 2015 had gotten the portion of its electricity generated from wind and solar all the way up to just over 30%. *See* <http://www.eia.gov/todayinenergy/detail.php?id=26372> The result: the average German household’s electricity rate in 2015 had risen to 28.7 euro cents per kWh, about *triple* the average U.S. rate. *See* <https://www.cleanenergywire.org/factsheets/what-german-households-pay-power>

Analyses of the soaring price of electricity in Germany place the blame squarely on excess costs that have been necessarily incurred to try to get to a stable, functioning, 24/7/365 system with so much input from intermittent renewables. First, massive wind and solar capacity must be installed to try to deal with days of light wind and heavy clouds. And for calm nights when the wind and solar sources produce nothing, nearly the entire fleet of fossil fuel plants must be maintained and ready to go, even though those sources may be idle much of the time. And then, some means must be found to deal with the surges of available

electricity when the wind and sun suddenly blow and shine together at full strength at the same time. As noted by Benny Peiser at the Global Warming Policy Foundation on April 4, 2015 (<http://www.thegwpf.com/benny-peiser-eus-green-energy-debacle-shows-the-futility-of-unilateral-climate-policies/>):

Every 10 new units worth of wind power installation has to be backed up with some eight units worth of fossil fuel generation. This is because fossil fuel plants have to power up suddenly to meet the deficiencies of intermittent renewables. In short, renewables do not provide an escape route from fossil fuel use without which they are unsustainable. . . . To avoid blackouts, the government has to subsidize uneconomic gas and coal power plants. . . . Germany's renewable energy levy, which subsidizes green energy production, rose from 14 billion euros to 20 billion euros in just one year as a result of the fierce expansion of wind and solar power projects. Since the introduction of the levy in 2000, the electricity bill of the typical German consumer has doubled.

And those extra costs are just to get to a system that gets about 30% of power from the intermittent renewables. To get higher than that, some means must be found to store the power from the wind and sun for release at times of calm and dark. To make this work, major cities like New York would require the equivalent of tens of millions of Teslas' worth of batteries, at a cost of tens or hundreds of billions of dollars.

An idea of how much extra costs must be incurred to get to a system that approaches 50% or more of electricity generation from intermittent renewables, we can look to a demonstration project that was put together in South Korea for a small community of just 97 households and 178 people. A report on the Gapa Island Project appeared on the Hankyoreh news site in July 2016 at http://english.hani.co.kr/arti/english_edition/e_national/752623.html. With average electricity usage of 142 kw, and maximum usage of 230 kw, the islanders installed wind and solar capacity of 674 kw – about *three times* maximum usage, to deal with light wind and low sun. They also bought battery capacity for about eight hours of average usage. The cost of the wind and solar capacity plus batteries was approximately \$12.5 million, or about \$125,000 per household. And with all that investment the islanders were still only able to get about 42% of their electricity from the sun and wind when averaged over a full month. They still needed the full fossil fuel backup capacity.

By applying a reasonable cost of capital to a system like that of Gapa Island, and considering additional elements of a system, like additional storage, that would

be necessary to push generation from renewables to higher levels, one can calculate that a system like the Gapa Island demonstration project for the full United States would lead to electricity costs of *at least five times* their current level, and more likely, far higher. Even then, the U.S. would be hard-pressed to achieve 50% of electricity from intermittent renewables. The Petitioners obviously have a strong personal interest in heading off such disastrous cost increases. Granting the relief sought by this Petition would prevent those cost increases from occurring.

IV. THE “LINES OF EVIDENCE” ON WHICH EPA BASED THE ENDANGERMENT FINDING HAVE ALL BEEN INVALIDATED.

EPA’s Endangerment Finding appears at 74 C.F.R., page 66,495, *et seq.* At page 66,518 EPA sets forth the three “lines of evidence” upon which it says it has attributed “observed climate change” to “anthropogenic activities,” thus providing the basis for the Finding that human GHG emissions endanger human health and welfare:

The attribution of observed climate change to anthropogenic activities is based on multiple lines of evidence. The first line of evidence arises from our basic physical understanding of the effects of changing concentrations of greenhouse gases, natural factors, and other human impacts on the climate system. The second line of evidence arises from indirect, historical estimates of past climate changes that the changes in global surface temperature over the last several decades are unusual. The third line of evidence arises from the use of computer-based climate models to simulate the likely patterns of response of the climate system to different forcing mechanisms (both natural and anthropogenic).

More information about the nature of each of the three “lines of evidence” can be gleaned from EPA’s further elaboration in the Endangerment Finding itself and the associated Technical Support Document.

By the first “line of evidence,” (“our basic physical understanding of the effects of changing concentrations of greenhouse gases, natural factors, and other human impacts on the climate system”), EPA is referring to its “greenhouse gas fingerprint” or “tropical hot spot” (“Hot Spot”) theory, which is that in the tropics, the upper troposphere is warming faster than the lower troposphere and the lower is warming faster than the surface, all due to rising atmospheric greenhouse gas concentrations blocking heat transfer into outer space. By this mechanism,

increasing greenhouse gas concentration is assumed to increase surface temperatures.

The second “line of evidence” (“indirect, historical estimates of past climate changes that suggest that the changes in global surface temperature over the last several decades are unusual”) refers to EPA’s claim that global average surface temperatures have been rising in a dangerous fashion over the last fifty years.

The third “line of evidence” (“use of computer-based climate models to simulate the likely patterns of response of the climate system to different forcing mechanisms (both natural and anthropogenic)”) consists of EPA’s reliance on climate models (not actually “evidence”) that assume that greenhouse gases are a key determinant of climate change. EPA uses climate models for two purposes: to “attribute” warming to human GHG emissions, and to set regulatory policy for such emissions based on their modeled impact on global temperatures.

The Research Report of Wallace, et al. (September 21, 2016) undertook to assess each of EPA’s three “lines of evidence” and to either validate or invalidate each of them based on the best available historical temperature data. In accordance with the scientific method, the Research Report used the best available temperature data from multiple sources, all of them completely independent from each other, for the validation/invalidation exercise. The data used in the Research Report are available at the following url: <https://thsresearch.files.wordpress.com/2017/01/ef-cpp-sc-2016-data-ths-data-master-original.xlsx>. Equally available from the text of the Report itself are all the methods, equations and formulas that were used to produce its results. In other words, the Report is fully replicable by any scientist who wishes to check or question its methods or results.

The principal conclusions of the Research Report are as follows:

- “These analysis results would appear to leave very, very little doubt but that EPA’s claim of a Tropical Hot Spot (THS), caused by rising atmospheric CO₂ levels, simply does not exist in the real world.”
- Once EPA’s THS assumption is invalidated, it is obvious why the climate models they claim can be relied upon, are also invalid.
- “[T]his analysis failed to find that the steadily rising Atmospheric CO₂ Concentrations have had a statistically significant impact on any of the 13 critically important temperature time series data analyzed.”

- “[T]hese results clearly demonstrate - 13 times in fact - that once just the ENSO [El Nino/La Nina] impacts on temperature data are accounted for, there is no “record setting” warming to be concerned about. In fact, there is no ENSO-Adjusted Warming at all.”

Research Report, p. 4.

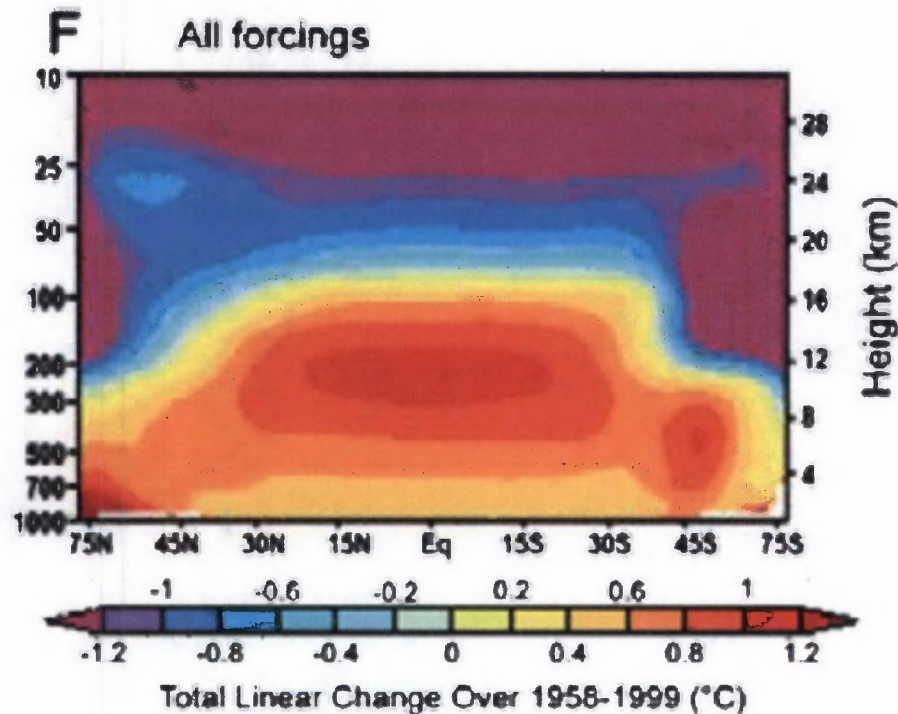
This means that the climate sensitivity parameter's estimate is not statistically significant. Therefore, the Social Cost of Carbon estimates now in widespread use to justify regulation of CO2 emissions are fundamentally flawed. The actual Social Cost of Carbon is negative rather than positive, meaning that CO2 is in fact a beneficial gas.

Invalidation of the the Hot Spot requires reconsideration of the Endangerment Finding because the Hot Spot is a critical and necessary component of the “physical understanding” of climate that EPA claims as the foundational line of evidence supporting the Endangerment Finding. For example, the “physical understanding” of the atmospheric greenhouse mechanism set forth in U.S. Climate Change Science Program, Synthesis and Assessment Product 1.1, Temperature Trends in the Lower Atmosphere - Understanding and Reconciling Differences, (“SAP 1.1”), Chapter 1, § 1.1, The Thermal Structure of the Atmosphere, p. 17-19, https://www.gfdl.noaa.gov/bibliography/related_files/vr0603.pdf : explicitly relies upon the Hot Spot:

The presence of such greenhouse gases (e.g., carbon dioxide, methane, nitrous oxide, halocarbons) increases the radiative heating of the surface and troposphere. As specific humidity is strongly related to temperature, it is expected to rise with surface warming (IPCC, 1990). The increased moisture content of the atmosphere amplifies the initial radiative heating due to the greenhouse gas increases (Manabe and Wetherald, 1967; Ramanathan, 1981). The re-establishment of a new thermal equilibrium in the climate system involves the communication of the added heat input to the troposphere and surface, leading to surface warming (Goody and Yung, 1989; IPCC, 1990; Lindzen and Emanuel, 2002). From the preceding discussions, the lapse rate can be expected to decrease with the resultant increase in humidity, and also to depend on the resultant changes in atmospheric circulation. **In general, the lapse rate can be expected to decrease with warming such that temperature changes aloft exceed those at the surface.** As a consequence, the characteristic

infrared emission level of the planet is shifted to a higher altitude in the atmosphere.

(Emphasis added). The CCSP SAP 1.1 report depicted the Hot Spot graphically in figure 1.3, p. 25, as follows:



Similarly, the IPCC's Fourth Assessment Report (AR4) also states unequivocally that the Hot Spot is an integral feature of the "physical understanding" of the climate's hypothesized greenhouse warming mechanism. This is demonstrated by AR4 WG1, The Physical Science Basis, Chapter 9, Figure 9.1. Panel (c) shows the modeled effect of GHGs, and clearly depicts the hot spot:

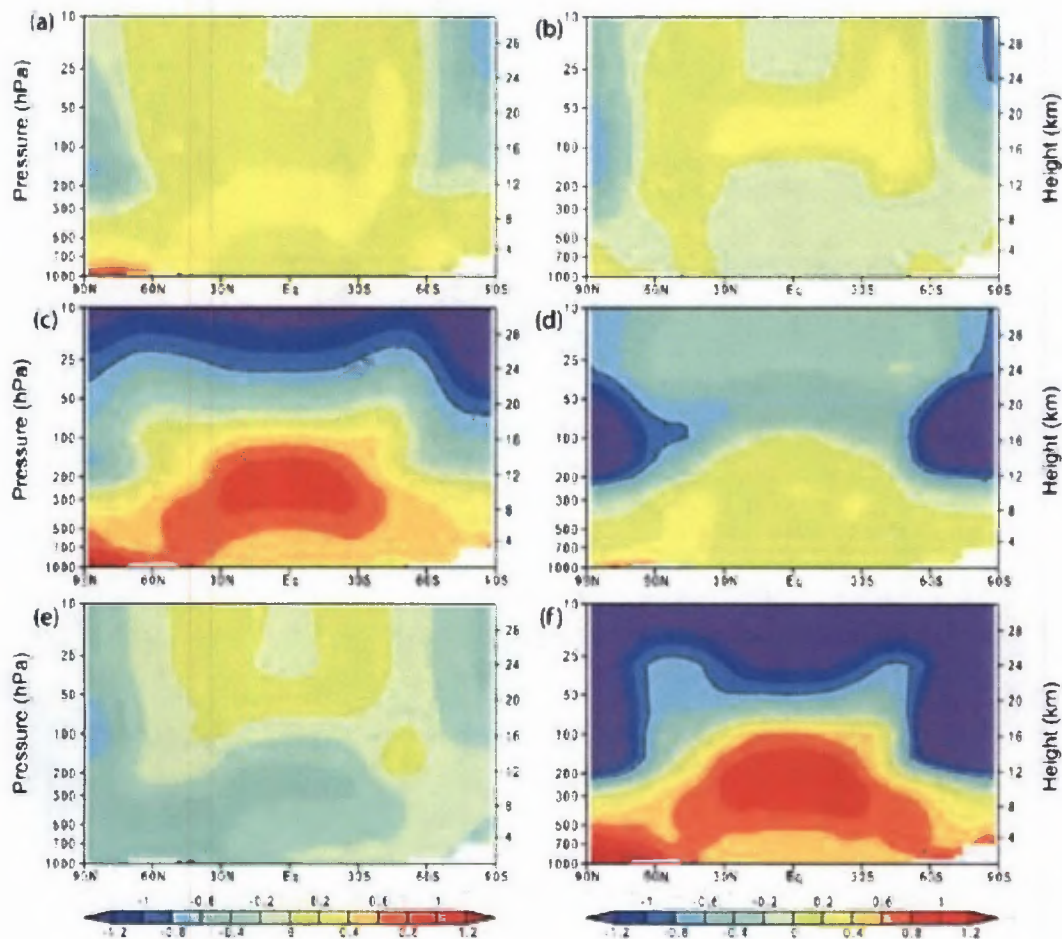


Figure 9.1. Zonal mean atmospheric temperature change from 1890 to 1999 ($^{\circ}\text{C}$ per century) as simulated by the FCM model from (a) solar forcing, (b) volcanoes, (c) well-mixed greenhouse gases, (d) tropospheric and stratospheric ozone changes, (e) direct sulphate aerosol forcing and (f) the sum of all forcings. Plot is from 1,000 hPa to 10 hPa (shown on left scale) and from 0 km to 30 km (shown on right). See Appendix 9.C for additional information. Based on Santer et al. (2003a).

The text accompanying this figure explains that “The major features shown in Figure 9.1 are robust to using different climate models.” IPCC AR4 WG1 § 9.2.2. (http://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch9s9-2-2.html). “Greenhouse gas forcing is expected to produce warming in the troposphere,” *Id.*

In adopting the Endangerment Finding, EPA explicitly, repeatedly and irrevocably placed primary reliance on the US CCSP reports and the IPCC AR4. See TSD Box 1.1, p 4. These assessments are cited thousands of times in the full set of documentation for the Endangerment Finding.

The CCSP report cited above said if the Hot Spot were missing it would be a “*potentially serious inconsistency*.” SAP 1.1, p. 11. (Emphasis added). Yet the

CCSP ultimately sided with those claiming at the time that the mismatch between observations and prediction was not fatal. *Id.*

EPA also acknowledged in the Technical Support Document for the Endangerment Finding that if the Hot Spot were missing it would be “an important inconsistency.” TSD p. 50. EPA’s team, including Tom Karl, agreed with the CCSP (led by the same Tom Karl) and concluded there was no dispositive conflict between prediction and observation. *Id.*

The Research Report, using substantial scientific evidence and additional data available only after 2009, not only shows a “an important inconsistency,” it invalidates the Hot Spot entirely. This is fatal to the EPA’s claimed physical understanding of climate, and is likewise fatal to the climate models constituting EPA’s third line of evidence. These models, relying on an invalidated physical theory, all predict the Hot Spot. Proper analysis of more than 50 years of balloon and 37 years of satellite temperature data generated by five independent entities conclusively shows that the Hot Spot does not exist. This demonstrates that the models are invalid and unreliable, and cannot properly be used for attribution analysis or forecasting warming due to anthropogenic CO2 emissions.

In sum, all three of the lines of evidence relied upon by EPA to attribute warming to human GHG emissions are invalid. The Endangerment Finding itself is therefore invalid and should be reconsidered. Moreover, this reconsideration is particularly urgent at this point in time in that the widely used Social Cost of Carbon has now been demonstrated to be fundamentally flawed. To put it mildly, the current Endangerment Finding and Social Cost of Carbon are leading the nation in the wrong direction from an energy policy standpoint. Decarbonization makes absolutely no scientific or economic sense.

V. CONCLUSION

No scientists have yet devised an empirically validated theory proving that higher atmospheric CO2 levels will lead to higher global average surface temperatures. Moreover, if the causal link between higher atmospheric CO2 concentrations and higher temperatures is broken by invalidating each of EPA’s three lines of evidence, then EPA’s assertions that higher CO2 concentrations also cause sea-level increases and more frequent and severe storms, floods, and droughts and other deleterious effects on human health and welfare are also disproved. Such causality assertions require a validated theory that higher atmospheric CO2 concentrations cause increases in temperatures. Lacking such a validated theory, EPA’s conclusions cannot stand. In science, credible empirical

data always trump proposed theories, even if those theories are claimed to (or actually do) represent the current consensus, or, in this case, a finding made by EPA.

The invalidated Endangerment Finding, combined with a fundamentally flawed and dangerous Social Cost of Carbon estimate, are now driving numerous potentially crippling regulations, including the Clean Power Plan and the newly proposed automotive fuel economy standards. EPA should therefore promptly convene a proceeding to reconsider the Endangerment Finding.

Respectfully submitted this 20th day of January, 2017.

Attorneys for Petitioners,

Francis Menton

Francis Menton by Harry W. MacDougald
Law Office of Francis Menton *express permission*

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Attorneys for Concerned Household
Electricity Consumers Council and
its members

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I. INTRODUCTION

Pursuant to Section 307(d) of the Clean Air Act, 42 U.S.C. § 7607(d), the Concerned Household Electricity Consumers Council (“CHECC”), consisting of Joseph D’Aleo, Clement Dwyer, Jr., Russell C. Slanover, Scott Univer, James P. Wallace III, Robin D. Weaver and Douglas S. Springer, hereby petition the U.S. Environmental Protection Agency (“EPA” or “the Agency”) to convene a proceeding for reconsideration of the “Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act” published by the Agency on December 15, 2009 (74 F.R. 66496, Dec. 15, 2009) (original EPA Docket No. Docket EPA-HQ-OAR-2009-171) (“the Endangerment Finding”).

As is more fully shown below, the Endangerment Finding was based on attribution of observed climate change to anthropogenic activities through what EPA termed its three “lines of evidence.” 74 C.F.R. at 66518. Scientific research since the adoption of the Endangerment Finding has invalidated each of EPA’s three lines of evidence. This Petition principally relies on the peer-reviewed Research Report of Wallace, *et al.*, that was first published on September 21, 2016. See <https://thsresearch.files.wordpress.com/2016/09/ef-cpp-sc-2016-data-ths-paper-ex-sum-090516v2.pdf> (“Research Report”). That Research Report is based on evidence that includes data as to atmospheric temperatures subsequent to the 2009 Endangerment Finding. The invalidation of the Endangerment Finding is conclusive, and thoroughly undermines all basis for any and all EPA regulation that is based on the Endangerment Finding, and the Social Cost of Carbon estimates that are based on this Finding.

The regulations that are based on the Endangerment Finding have resulted in much ongoing activity in the economy that looks to shut down existing sources of electricity and replace them with other much more expensive sources. Much of this activity is ongoing and, if not halted promptly, will impose massive new burdens on consumers of electricity. Therefore, Petitioners ask that EPA promptly convene hearings on this subject and issue a new “Non-Endangerment Finding” no later than June 20, 2017.

II. LEGAL STANDARD

Section 307(d)(7)(B) of the Clean Air Act, 42 U.S.C. § 7607(d)(7)(B), states in relevant part:

If the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such an objection within such time or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule, the Administrator shall convene a proceeding for reconsideration of the rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed.

Thus, EPA is required to convene a proceeding for reconsideration upon a showing of two conditions precedent: (1) the information arose after the period for public comment on the Endangerment Finding and (2) the objection is of “central relevance to the outcome of the rule.”

The procedural and substantive requirements for a petition for reconsideration are easily met here. The matters in this Petition could not have been raised during the comment period on the Endangerment Finding because the Research Report on which this Petition principally relies was first published on September 21, 2016, close to seven years *after* the Endangerment Finding. The Research Report in turn relies on substantial scientific evidence and data that did not exist at the time of the Endangerment Finding, namely data as to atmospheric temperatures that include extensive data for time periods subsequent to the Endangerment Finding. It was therefore not only impracticable but impossible to have raised these grounds within the original comment period or the period for judicial review of the Endangerment Finding.

The Petition is also timely under the rule of *Oljato Chapter of the Navajo Tribe v. Train*, 515 F.2d 654 (D.C. Cir. 1975).¹ *Oljato Tribe* sets forth a straightforward three-step process for EPA to follow in handling petitions for reconsideration under the Clean Air Act:

- (1) The person seeking revision of a standard of performance, or any other standard reviewable under Section 307, should petition EPA to revise the standard in question. The petition should be submitted together with supporting materials, or references to supporting materials.
- (2) EPA should respond to the petition and, if it denies the petition, set

¹ The Clean Air Act’s legislative history makes clear that “the committee bill confirms the court’s decision in *Oljato Chapter of the Navajo Tribe v. Train*, 515 F.2d 654 (D.C. Cir. 1975).” See H.R. Rep. 95-294, at 323 (May 12, 1977).

forth its reasons. (3) If the petition is denied, the petitioner may seek review of the denial in this court pursuant to Section 307.

Id. at 666.

This Petition satisfies the requirements enumerated in *Oljato Tribe*. It satisfies the first step because it seeks the withdrawal of the Endangerment Finding on specified legal grounds, namely that the attribution of warming to human emissions on which the Endangerment Finding is based has been conclusively invalidated. EPA thus has a duty to respond under the second step, with any denial of the Petition subject to review in the D.C. Circuit under the third step.

Oljato Tribe, in establishing the right to seek reconsideration, does no more than recognize the reality, first emphasized in the legislative history to the 1970 Clean Air Act Amendments, that regulations may need to be revised in light of new information:

Section 307 originated in the Senate version of the Clean Air Act. The Senate committee described its purpose in allowing for subsequent review based on new information as follows:

The committee recognizes that it would not be in the public interest to measure for all time the adequacy of a promulgation of any standard or regulation by the information available at the time of such promulgation. In the area of protection of public health and environmental quality, it is clear that new information will be developed and that such information may dictate a revision or modification of any promulgated standard or regulation established under the act. The judicial review section, therefore, provides that any person may challenge any promulgated implementation plan after the date of promulgation whenever it is alleged that significant new information has become available.

S.Rep.No.91-1196, 91st Cong., 2d Sess., 41-42 (1970).

Oljato Tribe, 515 F.2d at 660. Thus, when critical new information becomes available, as here, after a “regulation” has been “promulgated,” argument should be directed to EPA in the first instance on reconsideration, to build an appropriate administrative record for later D.C. Circuit review. *See id.* 665-66.

In *Oljato Tribe*, the holding of which was expressly confirmed in the legislative history of the 1977 Clean Air Act amendments, the relevant

reconsideration petition was remanded to EPA for consideration on its merits even though it was filed long outside the review period. Where, as here, the grounds for reconsideration arise after the close of the review period, the petition must still be considered.

The D.C. Circuit explained in *Oljato Tribe* that “the public’s right to petition the Administrator for revision of a standard of performance and the Administrator’s duty to respond substantively to such requests *exist completely independently of Section 307 and this court’s appellate jurisdiction.*” 515 F.2d at 667 (emphasis added). Thus, in *PPG Indus., Inc. v. Costle*, 659 F.2d 1239, 1250 (D.C. Cir. 1981), the D.C. Circuit held that amendment or repeal of a Clean Air Act regulation could be sought under APA Section 553(e) or Section 307(d)(7)(B), even well outside the 60-day review window:

Alternatively, a petition may be filed directly with EPA to interpret or amend the standard, to withdraw the Guidelines, or to specify midnight to midnight reporting procedures. *See* 42 U.S.C. § 7607(d)(7)(B); 5 U.S.C. § 553(e). Either route would provide a reviewing court with a contemporaneous record of the agency’s consideration of this issue, rather than with the “post hoc rationalizations of counsel.” *See Oljato Chapter of the Navajo Tribe et al. v. Train*, 515 F.2d 654, 665-68 (D.C. Cir. 1975).

PPG Indus., Inc. v. Costle, 659 F.2d at 1250. This procedure has been repeatedly recognized and approved. “The court subsequently endorsed the same procedure [as in *Oljato Tribe*], also under section 307, in *Group Against Smog & Pollution, Inc. v. EPA*, 665 F.2d 1284, 1290 (D.C. Cir. 1981); and *Natural Resources Defense Council, Inc. v. Thomas*, 845 F.2d 1088 (D.C.Cir.1988).” *Ciba-Geigy Corp. v. EPA*, 46 F.3d 1208, 1210 (D.C. Cir. 1995) (agreeing with the reasoning of those cases). The Agency itself granted a three-month stay of an emissions standard promulgated nearly four years earlier. *See* 63 Fed. Reg. 24,749 (May 5, 1998).

In sum, it is well-settled that EPA has a duty to consider and grant this Petition for Reconsideration, under both Section 307 and as a petition for rulemaking under 5 U.S.C. 553(e), because the grounds presented arose after the close of the period for public comment and judicial review.²

² To be clear, this Petition seeks relief alternatively under Clean Air Act Section 307(d)(7)(B) and 5 U.S.C. § 553(e).

Where, as here, the issues on reconsideration are substantial, a summary denial of the Petition would constitute an abuse of EPA's discretion. *Id.* at 666, n. 19. Likewise, a decision that EPA lacks authority to entertain the petition at all would misread the Agency's statutory mandate. *See Prill v. NLRB*, 755 F.2d 941, 947-48 (D.C. Cir. 1985), and its progeny. EPA may and must exercise the statutory discretion it has been delegated to consider this Petition on its merits.

The matters raised in this Petition are clearly of "central relevance" to the outcome of the Endangerment Finding. Indeed, the Research Report thoroughly and conclusively invalidates the entire basis for the Endangerment Finding, as that basis is stated and defined in the Endangerment Finding itself. *See Coalition for Responsible Regulation v. EPA*, 684 F. 3d 102, 125, 126 (D.C. Cir. 2012) (defining test of "central relevance"), *reversed on other grounds sub. nom. Utility Air Regulatory Group v. EPA*, 134 S.Ct. 2427 (2014).

III. STANDING OF THE PETITIONERS

The Petitioners herein are the Concerned Household Electricity Consumers Council ("CHECC"), and its members, namely Joseph D'Aleo, Clement Dwyer, Jr., Russell C. Slanover, Scott Univer, James P. Wallace III, Robin D. Weaver, and Douglas S. Springer.

Each of CHECC's members is a citizen of the United States and a member of a household that pays a monthly electricity bill to a utility that in turn is regulated by EPA. EPA's regulations based on the Endangerment Finding – notably but not exclusively including the so-called Clean Power Plan, 40 C.F.R. at 64662, *et seq.* – seek to replace current electricity generation sources primarily based on fossil fuels like coal and natural gas with so-called "renewables," principally wind turbines and solar panels. Replacement of fossil fuel sources with such renewables, that provide power only intermittently, threatens to increase the cost of electricity paid by the Petitioners (and by all Americans) by a factor of five or likely far more. Thus, should EPA's Endangerment Finding not be reconsidered and revoked, each of the Petitioners faces electricity bills that will inevitably increase over the coming years by many thousands of dollars per year. On a nationwide basis, the unnecessary incremental cost to consumers of replacing fossil fuel-based electricity generation with intermittent renewables is likely to be in the range of hundreds of billions of dollars per year, if not more.

A critical problem with intermittent renewables like wind and solar power lies in the excess costs that must be incurred to turn power from these sources into a fully-functioning electricity system that provides reliable power 24 hours a day, 7

days a week, and 365 days a year. Unfortunately, the wind is often calm or blows lightly; and the sun goes completely dark fully half the time (“night”), and also shines at far less than full strength on winter days, cloudy days, cloudy winter days, and at dawn and dusk. At many of these times, consumer power demands are high.

When the intermittent sources provide less than 10% of the electricity in a system, the problems of intermittency typically make only a small cost difference. On a calm night, the lack of power from wind and solar sources can be covered over by a cushion of 10 – 15% or so of excess fossil fuel-based electric power generation capacity. But as the percent of electricity generation from intermittent renewables increases to 15% and beyond, the necessary additional costs multiply. That proposition is demonstrated by the experience of states and countries that have attempted to increase the percent of their electricity generated by intermittent renewables.

For example, California is a “leader” in the United States in generating power from wind and solar sources. According to the California Energy Commission, in 2015 California got 6% of its electricity supply from solar and 8.2% from wind, for a total of 14.2% from those two intermittent sources. *See* http://www.energy.ca.gov/almanac/electricity_data/total_system_power.html According to the U.S. Energy Information Agency, California’s average electricity rate that year was 15.62 cents per kWh, versus a U.S. average of 10.31 cents per kWh. *See* https://www.eia.gov/electricity/monthly/epm_table_grapher.cfm?t=epmt_5_6_a In Europe, Germany began its so-called *Energiewende* (“energy transformation”) in 2010, and by 2015 had gotten the portion of its electricity generated from wind and solar all the way up to just over 30%. *See* <http://www.eia.gov/todayinenergy/detail.php?id=26372> The result: the average German household’s electricity rate in 2015 had risen to 28.7 euro cents per kWh, about *triple* the average U.S. rate. *See* <https://www.cleanenergywire.org/factsheets/what-german-households-pay-power>

Analyses of the soaring price of electricity in Germany place the blame squarely on excess costs that have been necessarily incurred to try to get to a stable, functioning, 24/7/365 system with so much input from intermittent renewables. First, massive wind and solar capacity must be installed to try to deal with days of light wind and heavy clouds. And for calm nights when the wind and solar sources produce nothing, nearly the entire fleet of fossil fuel plants must be maintained and ready to go, even though those sources may be idle much of the time. And then, some means must be found to deal with the surges of available

electricity when the wind and sun suddenly blow and shine together at full strength at the same time. As noted by Benny Peiser at the Global Warming Policy Foundation on April 4, 2015 (<http://www.thegwpcf.com/benny-peiser-eus-green-energy-debacle-shows-the-futility-of-unilateral-climate-policies/>):

Every 10 new units worth of wind power installation has to be backed up with some eight units worth of fossil fuel generation. This is because fossil fuel plants have to power up suddenly to meet the deficiencies of intermittent renewables. In short, renewables do not provide an escape route from fossil fuel use without which they are unsustainable. . . . To avoid blackouts, the government has to subsidize uneconomic gas and coal power plants. . . . Germany's renewable energy levy, which subsidizes green energy production, rose from 14 billion euros to 20 billion euros in just one year as a result of the fierce expansion of wind and solar power projects. Since the introduction of the levy in 2000, the electricity bill of the typical German consumer has doubled.

And those extra costs are just to get to a system that gets about 30% of power from the intermittent renewables. To get higher than that, some means must be found to store the power from the wind and sun for release at times of calm and dark. To make this work, major cities like New York would require the equivalent of tens of millions of Teslas' worth of batteries, at a cost of tens or hundreds of billions of dollars.

An idea of how much extra costs must be incurred to get to a system that approaches 50% or more of electricity generation from intermittent renewables, we can look to a demonstration project that was put together in South Korea for a small community of just 97 households and 178 people. A report on the Gapa Island Project appeared on the Hankyoreh news site in July 2016 at http://english.hani.co.kr/arti/english_edition/e_national/752623.html. With average electricity usage of 142 kw, and maximum usage of 230 kw, the islanders installed wind and solar capacity of 674 kw – about *three times* maximum usage, to deal with light wind and low sun. They also bought battery capacity for about eight hours of average usage. The cost of the wind and solar capacity plus batteries was approximately \$12.5 million, or about \$125,000 per household. And with all that investment the islanders were still only able to get about 42% of their electricity from the sun and wind when averaged over a full month. They still needed the full fossil fuel backup capacity.

By applying a reasonable cost of capital to a system like that of Gapa Island, and considering additional elements of a system, like additional storage, that would

be necessary to push generation from renewables to higher levels, one can calculate that a system like the Gapa Island demonstration project for the full United States would lead to electricity costs of *at least five times* their current level, and more likely, far higher. Even then, the U.S. would be hard-pressed to achieve 50% of electricity from intermittent renewables. The Petitioners obviously have a strong personal interest in heading off such disastrous cost increases. Granting the relief sought by this Petition would prevent those cost increases from occurring.

IV. THE “LINES OF EVIDENCE” ON WHICH EPA BASED THE ENDANGERMENT FINDING HAVE ALL BEEN INVALIDATED.

EPA’s Endangerment Finding appears at 74 C.F.R., page 66,495, *et seq.* At page 66,518 EPA sets forth the three “lines of evidence” upon which it says it has attributed “observed climate change” to “anthropogenic activities,” thus providing the basis for the Finding that human GHG emissions endanger human health and welfare:

The attribution of observed climate change to anthropogenic activities is based on multiple lines of evidence. The first line of evidence arises from our basic physical understanding of the effects of changing concentrations of greenhouse gases, natural factors, and other human impacts on the climate system. The second line of evidence arises from indirect, historical estimates of past climate changes that the changes in global surface temperature over the last several decades are unusual. The third line of evidence arises from the use of computer-based climate models to simulate the likely patterns of response of the climate system to different forcing mechanisms (both natural and anthropogenic).

More information about the nature of each of the three “lines of evidence” can be gleaned from EPA’s further elaboration in the Endangerment Finding itself and the associated Technical Support Document.

By the first “line of evidence,” (“our basic physical understanding of the effects of changing concentrations of greenhouse gases, natural factors, and other human impacts on the climate system”), EPA is referring to its “greenhouse gas fingerprint” or “tropical hot spot” (“Hot Spot”) theory, which is that in the tropics, the upper troposphere is warming faster than the lower troposphere and the lower is warming faster than the surface, all due to rising atmospheric greenhouse gas concentrations blocking heat transfer into outer space. By this mechanism,

increasing greenhouse gas concentration is assumed to increase surface temperatures.

The second “line of evidence” (“indirect, historical estimates of past climate changes that suggest that the changes in global surface temperature over the last several decades are unusual”) refers to EPA’s claim that global average surface temperatures have been rising in a dangerous fashion over the last fifty years.

The third “line of evidence” (“use of computer-based climate models to simulate the likely patterns of response of the climate system to different forcing mechanisms (both natural and anthropogenic)”) consists of EPA’s reliance on climate models (not actually “evidence”) that assume that greenhouse gases are a key determinant of climate change. EPA uses climate models for two purposes: to “attribute” warming to human GHG emissions, and to set regulatory policy for such emissions based on their modeled impact on global temperatures.

The Research Report of Wallace, et al. (September 21, 2016) undertook to assess each of EPA’s three “lines of evidence” and to either validate or invalidate each of them based on the best available historical temperature data. In accordance with the scientific method, the Research Report used the best available temperature data from multiple sources, all of them completely independent from each other, for the validation/invalidation exercise. The data used in the Research Report are available at the following url: <https://thsresearch.files.wordpress.com/2017/01/ef-cpp-sc-2016-data-ths-data-master-original.xlsx>. Equally available from the text of the Report itself are all the methods, equations and formulas that were used to produce its results. In other words, the Report is fully replicable by any scientist who wishes to check or question its methods or results.

The principal conclusions of the Research Report are as follows:

- “These analysis results would appear to leave very, very little doubt but that EPA’s claim of a Tropical Hot Spot (THS), caused by rising atmospheric CO₂ levels, simply does not exist in the real world.”
- Once EPA’s THS assumption is invalidated, it is obvious why the climate models they claim can be relied upon, are also invalid.
- “[T]his analysis failed to find that the steadily rising Atmospheric CO₂ Concentrations have had a statistically significant impact on any of the 13 critically important temperature time series data analyzed.”

- “[T]hese results clearly demonstrate - 13 times in fact - that once just the ENSO [El Nino/La Nina] impacts on temperature data are accounted for, there is no “record setting” warming to be concerned about. In fact, there is no ENSO-Adjusted Warming at all.”

Research Report, p. 4.

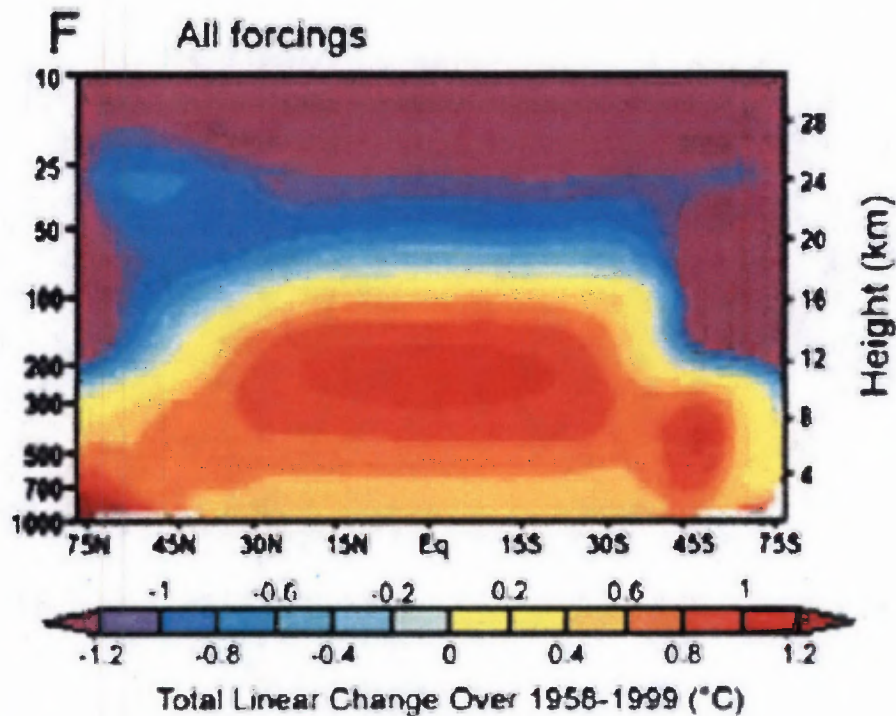
This means that the climate sensitivity parameter's estimate is not statistically significant. Therefore, the Social Cost of Carbon estimates now in widespread use to justify regulation of CO2 emissions are fundamentally flawed. The actual Social Cost of Carbon is negative rather than positive, meaning that CO2 is in fact a beneficial gas.

Invalidation of the the Hot Spot requires reconsideration of the Endangerment Finding because the Hot Spot is a critical and necessary component of the “physical understanding” of climate that EPA claims as the foundational line of evidence supporting the Endangerment Finding. For example, the “physical understanding” of the atmospheric greenhouse mechanism set forth in U.S. Climate Change Science Program, Synthesis and Assessment Product 1.1, Temperature Trends in the Lower Atmosphere - Understanding and Reconciling Differences, (“SAP 1.1”), Chapter 1, § 1.1, The Thermal Structure of the Atmosphere, p. 17-19, https://www.gfdl.noaa.gov/bibliography/related_files/vr0603.pdf : explicitly relies upon the Hot Spot:

The presence of such greenhouse gases (e.g., carbon dioxide, methane, nitrous oxide, halocarbons) increases the radiative heating of the surface and troposphere. As specific humidity is strongly related to temperature, it is expected to rise with surface warming (IPCC, 1990), The increased moisture content of the atmosphere amplifies the initial radiative heating due to the greenhouse gas increases (Manabe and Wetherald, 1967; Ramanathan, 1981). The re-establishment of a new thermal equilibrium in the climate system involves the communication of the added heat input to the troposphere and surface, leading to surface warming (Goody and Yung, 1989; IPCC, 1990; Lindzen and Emanuel, 2002). From the preceding discussions, the lapse rate can be expected to decrease with the resultant increase in humidity, and also to depend on the resultant changes in atmospheric circulation. **In general, the lapse rate can be expected to decrease with warming such that temperature changes aloft exceed those at the surface.** As a consequence, the characteristic

infrared emission level of the planet is shifted to a higher altitude in the atmosphere.

(Emphasis added). The CCSP SAP 1.1 report depicted the Hot Spot graphically in figure 1.3, p. 25, as follows:



Similarly, the IPCC's Fourth Assessment Report (AR4) also states unequivocally that the Hot Spot is an integral feature of the "physical understanding" of the climate's hypothesized greenhouse warming mechanism. This is demonstrated by AR4 WG1, The Physical Science Basis, Chapter 9, Figure 9.1. Panel (c) shows the modeled effect of GHGs, and clearly depicts the hot spot:

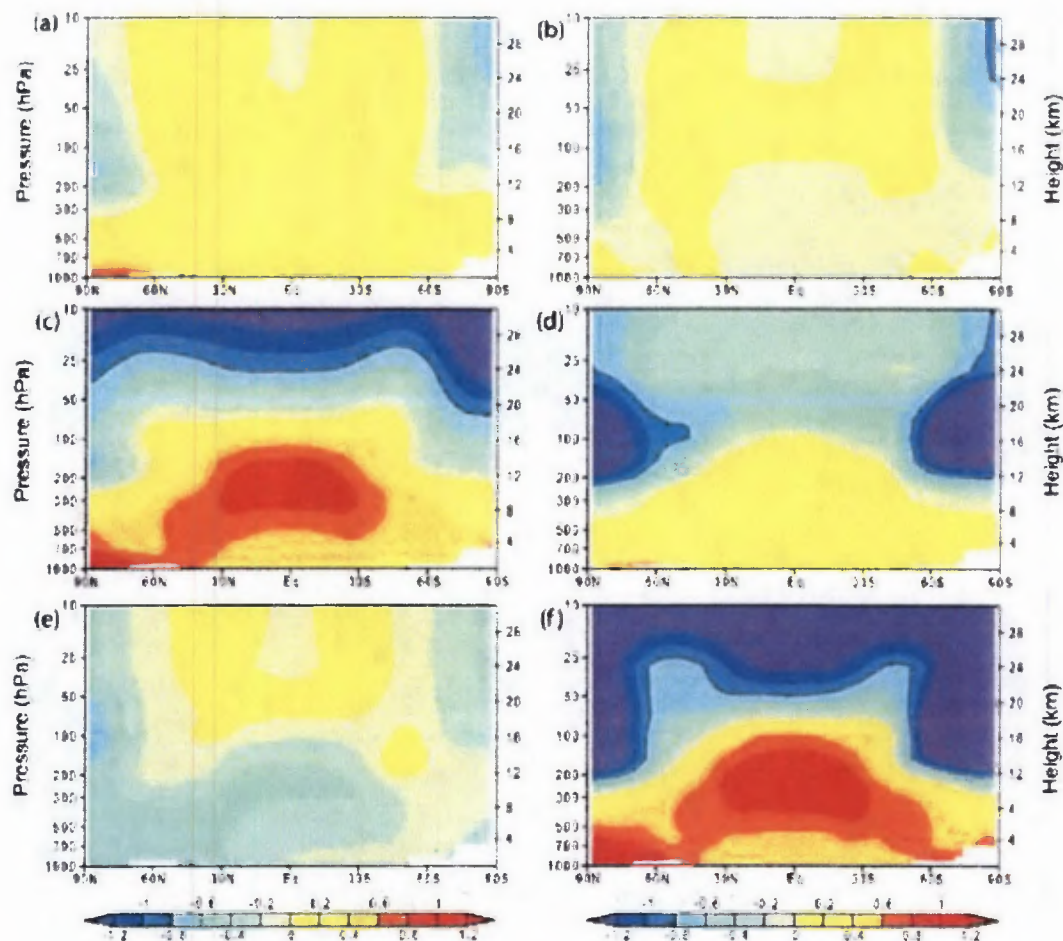


Figure 9.1. Zonal mean atmospheric temperature change from 1890 to 1999 ($^{\circ}\text{C}$ per century) as simulated by the FCM model from (a) solar forcing, (b) volcanoes, (c) well-mixed greenhouse gases, (d) tropospheric and stratospheric ozone changes, (e) direct sulphate aerosol forcing and (f) the sum of all forcings. Plot is from 1,000 hPa to 10 hPa (shown on left scale) and from 0 km to 20 km (shown on right). See [Appendix 9.C](#) for additional information. Based on Santer et al. (2003a).

The text accompanying this figure explains that “The major features shown in Figure 9.1 are robust to using different climate models.” IPCC AR4 WG1 § 9.2.2. (http://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch9s9-2-2.html).

“Greenhouse gas forcing is expected to produce warming in the troposphere,” *Id.*

In adopting the Endangerment Finding, EPA explicitly, repeatedly and irrevocably placed primary reliance on the US CCSP reports and the IPCC AR4. See TSD Box 1.1, p 4. These assessments are cited thousands of times in the full set of documentation for the Endangerment Finding.

The CCSP report cited above said if the Hot Spot were missing it would be a “*potentially serious inconsistency*.” SAP 1.1, p. 11. (Emphasis added). Yet the

CCSP ultimately sided with those claiming at the time that the mismatch between observations and prediction was not fatal. *Id.*

EPA also acknowledged in the Technical Support Document for the Endangerment Finding that if the Hot Spot were missing it would be “an important inconsistency.” TSD p. 50. EPA’s team, including Tom Karl, agreed with the CCSP (led by the same Tom Karl) and concluded there was no dispositive conflict between prediction and observation. *Id.*

The Research Report, using substantial scientific evidence and additional data available only after 2009, not only shows a “an important inconsistency,” it invalidates the Hot Spot entirely. This is fatal to the EPA’s claimed physical understanding of climate, and is likewise fatal to the climate models constituting EPA’s third line of evidence. These models, relying on an invalidated physical theory, all predict the Hot Spot. Proper analysis of more than 50 years of balloon and 37 years of satellite temperature data generated by five independent entities conclusively shows that the Hot Spot does not exist. This demonstrates that the models are invalid and unreliable, and cannot properly be used for attribution analysis or forecasting warming due to anthropogenic CO2 emissions.

In sum, all three of the lines of evidence relied upon by EPA to attribute warming to human GHG emissions are invalid. The Endangerment Finding itself is therefore invalid and should be reconsidered. Moreover, this reconsideration is particularly urgent at this point in time in that the widely used Social Cost of Carbon has now been demonstrated to be fundamentally flawed. To put it mildly, the current Endangerment Finding and Social Cost of Carbon are leading the nation in the wrong direction from an energy policy standpoint. Decarbonization makes absolutely no scientific or economic sense.

V. CONCLUSION

No scientists have yet devised an empirically validated theory proving that higher atmospheric CO2 levels will lead to higher global average surface temperatures. Moreover, if the causal link between higher atmospheric CO2 concentrations and higher temperatures is broken by invalidating each of EPA’s three lines of evidence, then EPA’s assertions that higher CO2 concentrations also cause sea-level increases and more frequent and severe storms, floods, and droughts and other deleterious effects on human health and welfare are also disproved. Such causality assertions require a validated theory that higher atmospheric CO2 concentrations cause increases in temperatures. Lacking such a validated theory, EPA’s conclusions cannot stand. In science, credible empirical

data always trump proposed theories, even if those theories are claimed to (or actually do) represent the current consensus, or, in this case, a finding made by EPA.

The invalidated Endangerment Finding, combined with a fundamentally flawed and dangerous Social Cost of Carbon estimate, are now driving numerous potentially crippling regulations, including the Clean Power Plan and the newly proposed automotive fuel economy standards. EPA should therefore promptly convene a proceeding to reconsider the Endangerment Finding.

Respectfully submitted this 20th day of January, 2017.

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BEFORE THE UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY

In re:)	
)	EPA Docket No.
Endangerment and Cause or Contribute)	
Findings for Greenhouse Gases Under)	EPA-HQ-OAR-2009-01
Section 202(a) of the Clean Air Act)	
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PETITION FOR RECONSIDERATION OF
“ENDANGERMENT AND CAUSE OR CONTRIBUTE FINDINGS FOR
GREENHOUSE GASES UNDER SECTION 202(a) OF THE CLEAN AIR ACT”

Filed by

**Concerned Household Electricity Consumers Council, consisting of
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James P. Wallace III, Robin D. Weaver, and Douglas S. Springer**

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I. INTRODUCTION

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The regulations that are based on the Endangerment Finding have resulted in much ongoing activity in the economy that looks to shut down existing sources of electricity and replace them with other much more expensive sources. Much of this activity is ongoing and, if not halted promptly, will impose massive new burdens on consumers of electricity. Therefore, Petitioners ask that EPA promptly convene hearings on this subject and issue a new “Non-Endangerment Finding” no later than June 20, 2017.

II. LEGAL STANDARD

Section 307(d)(7)(B) of the Clean Air Act, 42 U.S.C. § 7607(d)(7)(B), states in relevant part:

If the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such an objection within such time or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule, the Administrator shall convene a proceeding for reconsideration of the rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed.

Thus, EPA is required to convene a proceeding for reconsideration upon a showing of two conditions precedent: (1) the information arose after the period for public comment on the Endangerment Finding and (2) the objection is of “central relevance to the outcome of the rule.”

The procedural and substantive requirements for a petition for reconsideration are easily met here. The matters in this Petition could not have been raised during the comment period on the Endangerment Finding because the Research Report on which this Petition principally relies was first published on September 21, 2016, close to seven years *after* the Endangerment Finding. The Research Report in turn relies on substantial scientific evidence and data that did not exist at the time of the Endangerment Finding, namely data as to atmospheric temperatures that include extensive data for time periods subsequent to the Endangerment Finding. It was therefore not only impracticable but impossible to have raised these grounds within the original comment period or the period for judicial review of the Endangerment Finding.

The Petition is also timely under the rule of *Oljato Chapter of the Navajo Tribe v. Train*, 515 F.2d 654 (D.C. Cir. 1975).¹ *Oljato Tribe* sets forth a straightforward three-step process for EPA to follow in handling petitions for reconsideration under the Clean Air Act:

- (1) The person seeking revision of a standard of performance, or any other standard reviewable under Section 307, should petition EPA to revise the standard in question. The petition should be submitted together with supporting materials, or references to supporting materials.
- (2) EPA should respond to the petition and, if it denies the petition, set

¹ The Clean Air Act’s legislative history makes clear that “the committee bill confirms the court’s decision in *Oljato Chapter of the Navajo Tribe v. Train*, 515 F.2d 654 (D.C. Cir. 1975).” See H.R. Rep. 95-294, at 323 (May 12, 1977).

forth its reasons. (3) If the petition is denied, the petitioner may seek review of the denial in this court pursuant to Section 307.

Id. at 666.

This Petition satisfies the requirements enumerated in *Oljato Tribe*. It satisfies the first step because it seeks the withdrawal of the Endangerment Finding on specified legal grounds, namely that the attribution of warming to human emissions on which the Endangerment Finding is based has been conclusively invalidated. EPA thus has a duty to respond under the second step, with any denial of the Petition subject to review in the D.C. Circuit under the third step.

Oljato Tribe, in establishing the right to seek reconsideration, does no more than recognize the reality, first emphasized in the legislative history to the 1970 Clean Air Act Amendments, that regulations may need to be revised in light of new information:

Section 307 originated in the Senate version of the Clean Air Act. The Senate committee described its purpose in allowing for subsequent review based on new information as follows:

The committee recognizes that it would not be in the public interest to measure for all time the adequacy of a promulgation of any standard or regulation by the information available at the time of such promulgation. In the area of protection of public health and environmental quality, it is clear that new information will be developed and that such information may dictate a revision or modification of any promulgated standard or regulation established under the act. The judicial review section, therefore, provides that any person may challenge any promulgated implementation plan after the date of promulgation whenever it is alleged that significant new information has become available.

S.Rep.No.91-1196, 91st Cong., 2d Sess., 41-42 (1970).

Oljato Tribe, 515 F.2d at 660. Thus, when critical new information becomes available, as here, after a “regulation” has been “promulgated,” argument should be directed to EPA in the first instance on reconsideration, to build an appropriate administrative record for later D.C. Circuit review. *See id.* 665-66.

In *Oljato Tribe*, the holding of which was expressly confirmed in the legislative history of the 1977 Clean Air Act amendments, the relevant

reconsideration petition was remanded to EPA for consideration on its merits even though it was filed long outside the review period. Where, as here, the grounds for reconsideration arise after the close of the review period, the petition must still be considered.

The D.C. Circuit explained in *Oljato Tribe* that “the public’s right to petition the Administrator for revision of a standard of performance and the Administrator’s duty to respond substantively to such requests *exist completely independently of Section 307 and this court’s appellate jurisdiction.*” 515 F.2d at 667 (emphasis added). Thus, in *PPG Indus., Inc. v. Costle*, 659 F.2d 1239, 1250 (D.C. Cir. 1981), the D.C. Circuit held that amendment or repeal of a Clean Air Act regulation could be sought under APA Section 553(e) or Section 307(d)(7)(B), even well outside the 60-day review window:

Alternatively, a petition may be filed directly with EPA to interpret or amend the standard, to withdraw the Guidelines, or to specify midnight to midnight reporting procedures. *See* 42 U.S.C. § 7607(d)(7)(B); 5 U.S.C. § 553(e). Either route would provide a reviewing court with a contemporaneous record of the agency’s consideration of this issue, rather than with the “post hoc rationalizations of counsel.” *See Oljato Chapter of the Navajo Tribe et al. v. Train*, 515 F.2d 654, 665-68 (D.C. Cir. 1975).

PPG Indus., Inc. v. Costle, 659 F.2d at 1250. This procedure has been repeatedly recognized and approved. “The court subsequently endorsed the same procedure [as in *Ojlato Tribe*], also under section 307, in *Group Against Smog & Pollution, Inc. v. EPA*, 665 F.2d 1284, 1290 (D.C. Cir. 1981); and *Natural Resources Defense Council, Inc. v. Thomas*, 845 F.2d 1088 (D.C.Cir.1988).” *Ciba-Geigy Corp. v. EPA*, 46 F.3d 1208, 1210 (D.C. Cir. 1995) (agreeing with the reasoning of those cases). The Agency itself granted a three-month stay of an emissions standard promulgated nearly four years earlier. *See* 63 Fed. Reg. 24,749 (May 5, 1998).

In sum, it is well-settled that EPA has a duty to consider and grant this Petition for Reconsideration, under both Section 307 and as a petition for rulemaking under 5 U.S.C. 553(e), because the grounds presented arose after the close of the period for public comment and judicial review.²

² To be clear, this Petition seeks relief alternatively under Clean Air Act Section 307(d)(7)(B) and 5 U.S.C. § 553(e).

Where, as here, the issues on reconsideration are substantial, a summary denial of the Petition would constitute an abuse of EPA's discretion. *Id.* at 666, n. 19. Likewise, a decision that EPA lacks authority to entertain the petition at all would misread the Agency's statutory mandate. *See Prill v. NLRB*, 755 F.2d 941, 947-48 (D.C. Cir. 1985), and its progeny. EPA may and must exercise the statutory discretion it has been delegated to consider this Petition on its merits.

The matters raised in this Petition are clearly of "central relevance" to the outcome of the Endangerment Finding. Indeed, the Research Report thoroughly and conclusively invalidates the entire basis for the Endangerment Finding, as that basis is stated and defined in the Endangerment Finding itself. *See Coalition for Responsible Regulation v. EPA*, 684 F. 3d 102, 125, 126 (D.C. Cir. 2012) (defining test of "central relevance"), *reversed on other grounds sub. nom. Utility Air Regulatory Group v. EPA*, 134 S.Ct. 2427 (2014).

III. STANDING OF THE PETITIONERS

The Petitioners herein are the Concerned Household Electricity Consumers Council ("CHECC"), and its members, namely Joseph D'Aleo, Clement Dwyer, Jr., Russell C. Slanover, Scott Univer, James P. Wallace III, Robin D. Weaver, and Douglas S. Springer.

Each of CHECC's members is a citizen of the United States and a member of a household that pays a monthly electricity bill to a utility that in turn is regulated by EPA. EPA's regulations based on the Endangerment Finding – notably but not exclusively including the so-called Clean Power Plan, 40 C.F.R. at 64662, *et seq.* – seek to replace current electricity generation sources primarily based on fossil fuels like coal and natural gas with so-called "renewables," principally wind turbines and solar panels. Replacement of fossil fuel sources with such renewables, that provide power only intermittently, threatens to increase the cost of electricity paid by the Petitioners (and by all Americans) by a factor of five or likely far more. Thus, should EPA's Endangerment Finding not be reconsidered and revoked, each of the Petitioners faces electricity bills that will inevitably increase over the coming years by many thousands of dollars per year. On a nationwide basis, the unnecessary incremental cost to consumers of replacing fossil fuel-based electricity generation with intermittent renewables is likely to be in the range of hundreds of billions of dollars per year, if not more.

A critical problem with intermittent renewables like wind and solar power lies in the excess costs that must be incurred to turn power from these sources into a fully-functioning electricity system that provides reliable power 24 hours a day, 7

days a week, and 365 days a year. Unfortunately, the wind is often calm or blows lightly; and the sun goes completely dark fully half the time (“night”), and also shines at far less than full strength on winter days, cloudy days, cloudy winter days, and at dawn and dusk. At many of these times, consumer power demands are high.

When the intermittent sources provide less than 10% of the electricity in a system, the problems of intermittency typically make only a small cost difference. On a calm night, the lack of power from wind and solar sources can be covered over by a cushion of 10 – 15% or so of excess fossil fuel-based electric power generation capacity. But as the percent of electricity generation from intermittent renewables increases to 15% and beyond, the necessary additional costs multiply. That proposition is demonstrated by the experience of states and countries that have attempted to increase the percent of their electricity generated by intermittent renewables.

For example, California is a “leader” in the United States in generating power from wind and solar sources. According to the California Energy Commission, in 2015 California got 6% of its electricity supply from solar and 8.2% from wind, for a total of 14.2% from those two intermittent sources. *See* http://www.energy.ca.gov/almanac/electricity_data/total_system_power.html According to the U.S. Energy Information Agency, California’s average electricity rate that year was 15.62 cents per kWh, versus a U.S. average of 10.31 cents per kWh. *See* https://www.eia.gov/electricity/monthly/epm_table_grapher.cfm?t=epmt_5_6 a In Europe, Germany began its so-called *Energiewende* (“energy transformation”) in 2010, and by 2015 had gotten the portion of its electricity generated from wind and solar all the way up to just over 30%. *See* <http://www.eia.gov/todayinenergy/detail.php?id=26372> The result: the average German household’s electricity rate in 2015 had risen to 28.7 euro cents per kWh, about *triple* the average U.S. rate. *See* <https://www.cleanenergywire.org/factsheets/what-german-households-pay-power>

Analyses of the soaring price of electricity in Germany place the blame squarely on excess costs that have been necessarily incurred to try to get to a stable, functioning, 24/7/365 system with so much input from intermittent renewables. First, massive wind and solar capacity must be installed to try to deal with days of light wind and heavy clouds. And for calm nights when the wind and solar sources produce nothing, nearly the entire fleet of fossil fuel plants must be maintained and ready to go, even though those sources may be idle much of the time. And then, some means must be found to deal with the surges of available

electricity when the wind and sun suddenly blow and shine together at full strength at the same time. As noted by Benny Peiser at the Global Warming Policy Foundation on April 4, 2015 (<http://www.thegwpf.com/benny-peiser-eus-green-energy-debacle-shows-the-futility-of-unilateral-climate-policies/>):

Every 10 new units worth of wind power installation has to be backed up with some eight units worth of fossil fuel generation. This is because fossil fuel plants have to power up suddenly to meet the deficiencies of intermittent renewables. In short, renewables do not provide an escape route from fossil fuel use without which they are unsustainable. . . . To avoid blackouts, the government has to subsidize uneconomic gas and coal power plants. . . . Germany's renewable energy levy, which subsidizes green energy production, rose from 14 billion euros to 20 billion euros in just one year as a result of the fierce expansion of wind and solar power projects. Since the introduction of the levy in 2000, the electricity bill of the typical German consumer has doubled.

And those extra costs are just to get to a system that gets about 30% of power from the intermittent renewables. To get higher than that, some means must be found to store the power from the wind and sun for release at times of calm and dark. To make this work, major cities like New York would require the equivalent of tens of millions of Teslas' worth of batteries, at a cost of tens or hundreds of billions of dollars.

An idea of how much extra costs must be incurred to get to a system that approaches 50% or more of electricity generation from intermittent renewables, we can look to a demonstration project that was put together in South Korea for a small community of just 97 households and 178 people. A report on the Gapa Island Project appeared on the Hankyoreh news site in July 2016 at http://english.hani.co.kr/arti/english_edition/e_national/752623.html. With average electricity usage of 142 kw, and maximum usage of 230 kw, the islanders installed wind and solar capacity of 674 kw – about *three times* maximum usage, to deal with light wind and low sun. They also bought battery capacity for about eight hours of average usage. The cost of the wind and solar capacity plus batteries was approximately \$12.5 million, or about \$125,000 per household. And with all that investment the islanders were still only able to get about 42% of their electricity from the sun and wind when averaged over a full month. They still needed the full fossil fuel backup capacity.

By applying a reasonable cost of capital to a system like that of Gapa Island, and considering additional elements of a system, like additional storage, that would

be necessary to push generation from renewables to higher levels, one can calculate that a system like the Gapa Island demonstration project for the full United States would lead to electricity costs of *at least five times* their current level, and more likely, far higher. Even then, the U.S. would be hard-pressed to achieve 50% of electricity from intermittent renewables. The Petitioners obviously have a strong personal interest in heading off such disastrous cost increases. Granting the relief sought by this Petition would prevent those cost increases from occurring.

IV. THE “LINES OF EVIDENCE” ON WHICH EPA BASED THE ENDANGERMENT FINDING HAVE ALL BEEN INVALIDATED.

EPA’s Endangerment Finding appears at 74 C.F.R., page 66,495, *et seq.* At page 66,518 EPA sets forth the three “lines of evidence” upon which it says it has attributed “observed climate change” to “anthropogenic activities,” thus providing the basis for the Finding that human GHG emissions endanger human health and welfare:

The attribution of observed climate change to anthropogenic activities is based on multiple lines of evidence. The first line of evidence arises from our basic physical understanding of the effects of changing concentrations of greenhouse gases, natural factors, and other human impacts on the climate system. The second line of evidence arises from indirect, historical estimates of past climate changes that the changes in global surface temperature over the last several decades are unusual. The third line of evidence arises from the use of computer-based climate models to simulate the likely patterns of response of the climate system to different forcing mechanisms (both natural and anthropogenic).

More information about the nature of each of the three “lines of evidence” can be gleaned from EPA’s further elaboration in the Endangerment Finding itself and the associated Technical Support Document.

By the first “line of evidence,” (“our basic physical understanding of the effects of changing concentrations of greenhouse gases, natural factors, and other human impacts on the climate system”), EPA is referring to its “greenhouse gas fingerprint” or “tropical hot spot” (“Hot Spot”) theory, which is that in the tropics, the upper troposphere is warming faster than the lower troposphere and the lower is warming faster than the surface, all due to rising atmospheric greenhouse gas concentrations blocking heat transfer into outer space. By this mechanism,

increasing greenhouse gas concentration is assumed to increase surface temperatures.

The second “line of evidence” (“indirect, historical estimates of past climate changes that suggest that the changes in global surface temperature over the last several decades are unusual”) refers to EPA’s claim that global average surface temperatures have been rising in a dangerous fashion over the last fifty years.

The third “line of evidence” (“use of computer-based climate models to simulate the likely patterns of response of the climate system to different forcing mechanisms (both natural and anthropogenic)”) consists of EPA’s reliance on climate models (not actually “evidence”) that assume that greenhouse gases are a key determinant of climate change. EPA uses climate models for two purposes: to “attribute” warming to human GHG emissions, and to set regulatory policy for such emissions based on their modeled impact on global temperatures.

The Research Report of Wallace, et al. (September 21, 2016) undertook to assess each of EPA’s three “lines of evidence” and to either validate or invalidate each of them based on the best available historical temperature data. In accordance with the scientific method, the Research Report used the best available temperature data from multiple sources, all of them completely independent from each other, for the validation/invalidation exercise. The data used in the Research Report are available at the following url: <https://thsresearch.files.wordpress.com/2017/01/ef-cpp-sc-2016-data-ths-data-master-original.xlsx>. Equally available from the text of the Report itself are all the methods, equations and formulas that were used to produce its results. In other words, the Report is fully replicable by any scientist who wishes to check or question its methods or results.

The principal conclusions of the Research Report are as follows:

- “These analysis results would appear to leave very, very little doubt but that EPA’s claim of a Tropical Hot Spot (THS), caused by rising atmospheric CO₂ levels, simply does not exist in the real world.”
- Once EPA’s THS assumption is invalidated, it is obvious why the climate models they claim can be relied upon, are also invalid.
- “[T]his analysis failed to find that the steadily rising Atmospheric CO₂ Concentrations have had a statistically significant impact on any of the 13 critically important temperature time series data analyzed.”

- “[T]hese results clearly demonstrate - 13 times in fact - that once just the ENSO [El Nino/La Nina] impacts on temperature data are accounted for, there is no “record setting” warming to be concerned about. In fact, there is no ENSO-Adjusted Warming at all.”

Research Report, p. 4.

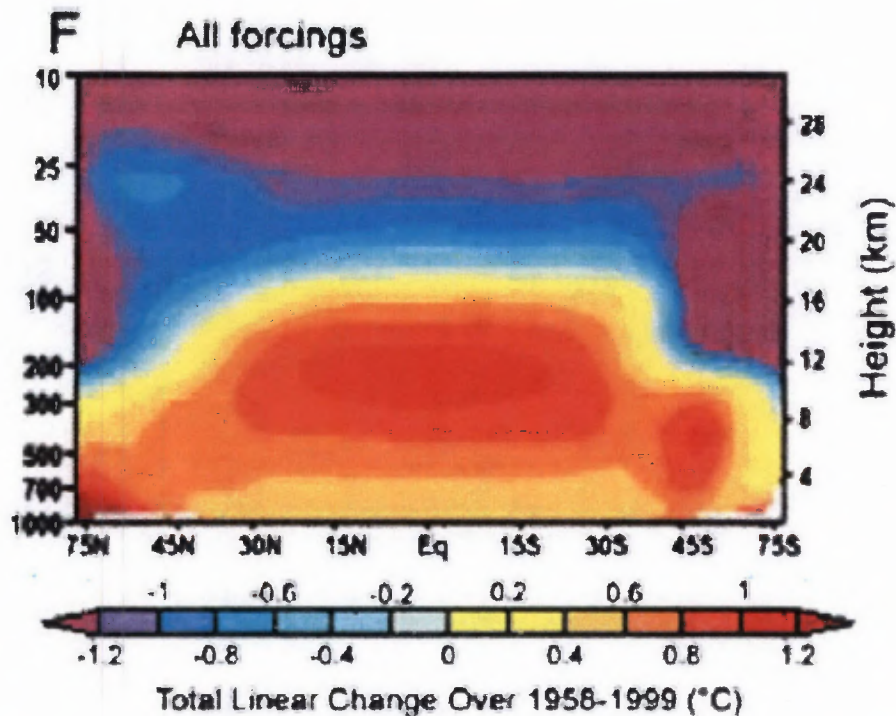
This means that the climate sensitivity parameter's estimate is not statistically significant. Therefore, the Social Cost of Carbon estimates now in widespread use to justify regulation of CO2 emissions are fundamentally flawed. The actual Social Cost of Carbon is negative rather than positive, meaning that CO2 is in fact a beneficial gas.

Invalidation of the the Hot Spot requires reconsideration of the Endangerment Finding because the Hot Spot is a critical and necessary component of the “physical understanding” of climate that EPA claims as the foundational line of evidence supporting the Endangerment Finding. For example, the “physical understanding” of the atmospheric greenhouse mechanism set forth in U.S. Climate Change Science Program, Synthesis and Assessment Product 1.1, Temperature Trends in the Lower Atmosphere - Understanding and Reconciling Differences, (“SAP 1.1”), Chapter 1, § 1.1, The Thermal Structure of the Atmosphere, p. 17-19, https://www.gfdl.noaa.gov/bibliography/related_files/vr0603.pdf : explicitly relies upon the Hot Spot:

The presence of such greenhouse gases (e.g., carbon dioxide, methane, nitrous oxide, halocarbons) increases the radiative heating of the surface and troposphere. As specific humidity is strongly related to temperature, it is expected to rise with surface warming (IPCC, 1990). The increased moisture content of the atmosphere amplifies the initial radiative heating due to the greenhouse gas increases (Manabe and Wetherald, 1967; Ramanathan, 1981). The re-establishment of a new thermal equilibrium in the climate system involves the communication of the added heat input to the troposphere and surface, leading to surface warming (Goody and Yung, 1989; IPCC, 1990; Lindzen and Emanuel, 2002). From the preceding discussions, the lapse rate can be expected to decrease with the resultant increase in humidity, and also to depend on the resultant changes in atmospheric circulation. **In general, the lapse rate can be expected to decrease with warming such that temperature changes aloft exceed those at the surface.** As a consequence, the characteristic

infrared emission level of the planet is shifted to a higher altitude in the atmosphere.

(Emphasis added). The CCSP SAP 1.1 report depicted the Hot Spot graphically in figure 1.3, p. 25, as follows:



Similarly, the IPCC's Fourth Assessment Report (AR4) also states unequivocally that the Hot Spot is an integral feature of the "physical understanding" of the climate's hypothesized greenhouse warming mechanism. This is demonstrated by AR4 WG1, The Physical Science Basis, Chapter 9, Figure 9.1. Panel (c) shows the modeled effect of GHGs, and clearly depicts the hot spot:

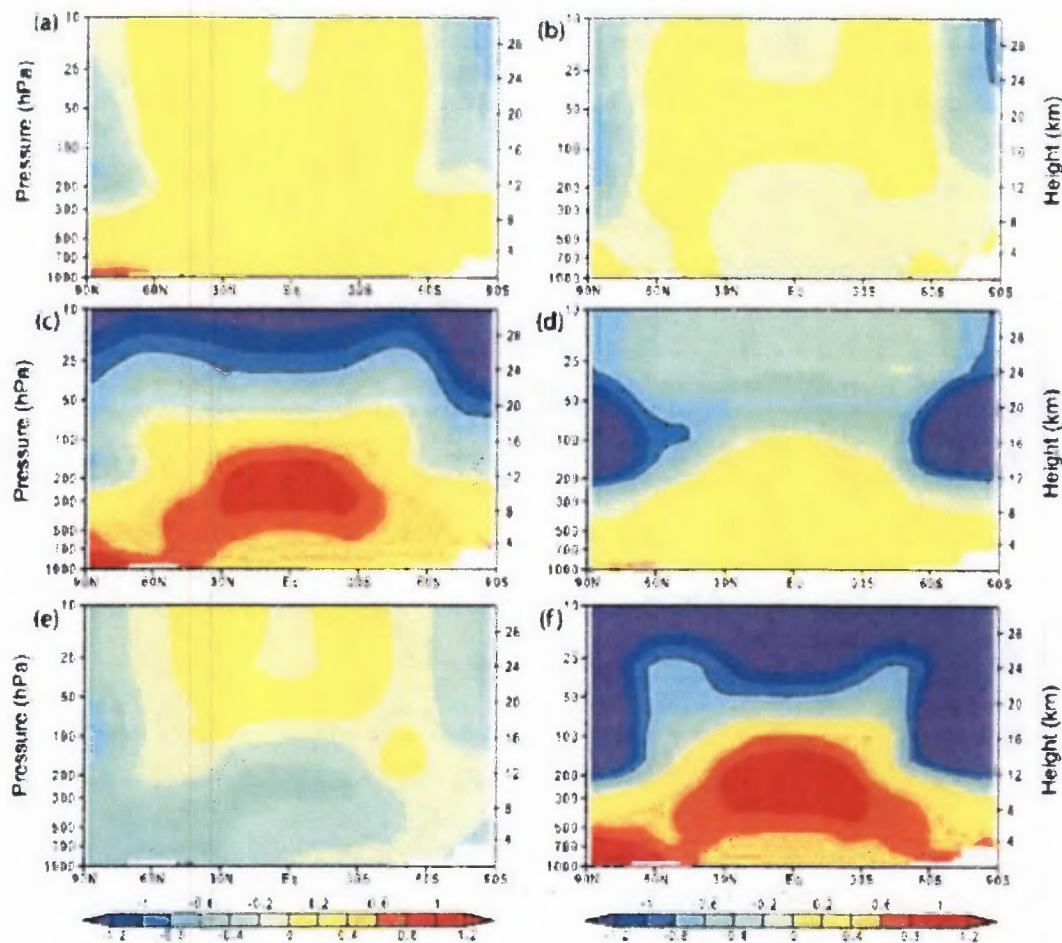


Figure 9.1 Zonal mean atmospheric temperature change from 1890 to 1999 ($^{\circ}\text{C}$ per century) as simulated by the FCM model from (a) solar forcing, (b) volcanoes, (c) well-mixed greenhouse gases, (d) tropospheric and stratospheric ozone changes, (e) direct sulphate aerosol forcing and (f) the sum of all forcings. Plot is from 1,000 hPa to 10 hPa (shown on left scale) and from 0 km to 28 km (shown on right). See Appendix B.6 for additional information. Based on Santer et al. (2003a).

The text accompanying this figure explains that “The major features shown in Figure 9.1 are robust to using different climate models.” IPCC AR4 WG1 § 9.2.2. (http://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch9s9-2-2.html).

“Greenhouse gas forcing is expected to produce warming in the troposphere,”
Id.

In adopting the Endangerment Finding, EPA explicitly, repeatedly and irrevocably placed primary reliance on the US CCSP reports and the IPCC AR4. See TSD Box 1.1, p 4. These assessments are cited thousands of times in the full set of documentation for the Endangerment Finding.

The CCSP report cited above said if the Hot Spot were missing it would be a “*potentially serious inconsistency*.” SAP 1.1, p. 11. (Emphasis added). Yet the

CCSP ultimately sided with those claiming at the time that the mismatch between observations and prediction was not fatal. *Id.*

EPA also acknowledged in the Technical Support Document for the Endangerment Finding that if the Hot Spot were missing it would be “an important inconsistency.” TSD p. 50. EPA’s team, including Tom Karl, agreed with the CCSP (led by the same Tom Karl) and concluded there was no dispositive conflict between prediction and observation. *Id.*

The Research Report, using substantial scientific evidence and additional data available only after 2009, not only shows a “an important inconsistency,” it invalidates the Hot Spot entirely. This is fatal to the EPA’s claimed physical understanding of climate, and is likewise fatal to the climate models constituting EPA’s third line of evidence. These models, relying on an invalidated physical theory, all predict the Hot Spot. Proper analysis of more than 50 years of balloon and 37 years of satellite temperature data generated by five independent entities conclusively shows that the Hot Spot does not exist. This demonstrates that the models are invalid and unreliable, and cannot properly be used for attribution analysis or forecasting warming due to anthropogenic CO2 emissions.

In sum, all three of the lines of evidence relied upon by EPA to attribute warming to human GHG emissions are invalid. The Endangerment Finding itself is therefore invalid and should be reconsidered. Moreover, this reconsideration is particularly urgent at this point in time in that the widely used Social Cost of Carbon has now been demonstrated to be fundamentally flawed. To put it mildly, the current Endangerment Finding and Social Cost of Carbon are leading the nation in the wrong direction from an energy policy standpoint. Decarbonization makes absolutely no scientific or economic sense.

V. CONCLUSION

No scientists have yet devised an empirically validated theory proving that higher atmospheric CO2 levels will lead to higher global average surface temperatures. Moreover, if the causal link between higher atmospheric CO2 concentrations and higher temperatures is broken by invalidating each of EPA’s three lines of evidence, then EPA’s assertions that higher CO2 concentrations also cause sea-level increases and more frequent and severe storms, floods, and droughts and other deleterious effects on human health and welfare are also disproved. Such causality assertions require a validated theory that higher atmospheric CO2 concentrations cause increases in temperatures. Lacking such a validated theory, EPA’s conclusions cannot stand. In science, credible empirical

data always trump proposed theories, even if those theories are claimed to (or actually do) represent the current consensus, or, in this case, a finding made by EPA.

The invalidated Endangerment Finding, combined with a fundamentally flawed and dangerous Social Cost of Carbon estimate, are now driving numerous potentially crippling regulations, including the Clean Power Plan and the newly proposed automotive fuel economy standards. EPA should therefore promptly convene a proceeding to reconsider the Endangerment Finding.

Respectfully submitted this 20th day of January, 2017.

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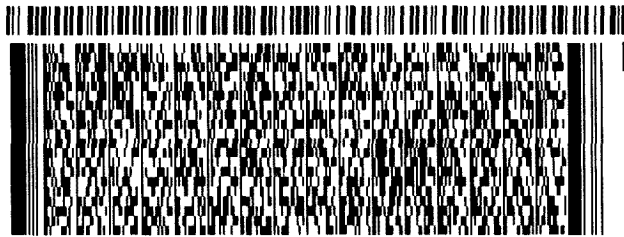
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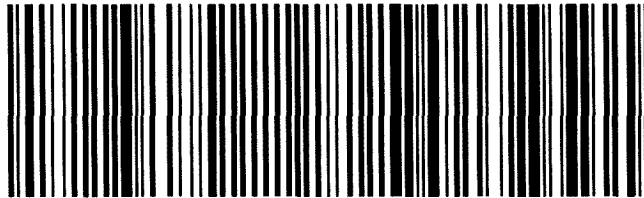
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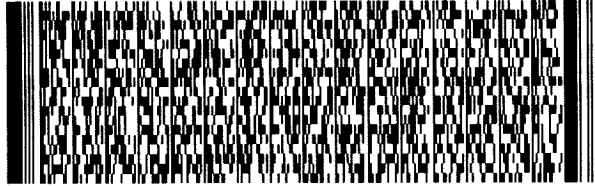
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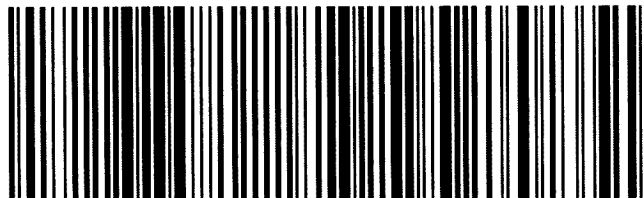
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